

## § 193.2511

## 49 CFR Ch. I (10–1–13 Edition)

forth the steps required to protect the public in the event of an emergency, including catastrophic failure of an LNG storage tank.

(4) Cooperating with appropriate local officials in evacuations and emergencies requiring mutual assistance and keeping these officials advised of:

(i) The LNG plant fire control equipment, its location, and quantity of units located throughout the plant;

(ii) Potential hazards at the plant, including fires;

(iii) Communication and emergency control capabilities at the LNG plant; and

(iv) The status of each emergency.

[Amdt. 193–2, 45 FR 70405, Oct. 23, 1980, as amended by Amdt. 193–18, 69 FR 11337, Mar. 10, 2004]

### § 193.2511 Personnel safety.

(a) Each operator shall provide any special protective clothing and equipment necessary for the safety of personnel while they are performing emergency response duties.

(b) All personnel who are normally on duty at a fixed location, such as a building or yard, where they could be harmed by thermal radiation from a burning pool of impounded liquid, must be provided a means of protection at that location from the harmful effects of thermal radiation or a means of escape.

(c) Each LNG plant must be equipped with suitable first-aid material, the location of which is clearly marked and readily available to personnel.

### § 193.2513 Transfer procedures.

(a) Each transfer of LNG or other hazardous fluid must be conducted in accordance with one or more manuals of written procedures to provide for safe transfers.

(b) The transfer procedures must include provisions for personnel to:

(1) Before transfer, verify that the transfer system is ready for use, with connections and controls in proper positions, including if the system could contain a combustible mixture, verifying that it has been adequately purged in accordance with a procedure which meets the requirements of AGA “Purging Principles and Practice.”

(2) Before transfer, verify that each receiving container or tank vehicle does not contain any substance that would be incompatible with the incoming fluid and that there is sufficient capacity available to receive the amount of fluid to be transferred;

(3) Before transfer, verify the maximum filling volume of each receiving container or tank vehicle to ensure that expansion of the incoming fluid due to warming will not result in overfilling or overpressure;

(4) When making bulk transfer of LNG into a partially filled (excluding cooldown heel) container, determine any differences in temperature or specific gravity between the LNG being transferred and the LNG already in the container and, if necessary, provide a means to prevent rollover due to stratification.

(5) Verify that the transfer operations are proceeding within design conditions and that overpressure or overfilling does not occur by monitoring applicable flow rates, liquid levels, and vapor returns.

(6) Manually terminate the flow before overfilling or overpressure occurs; and

(7) Deactivate cargo transfer systems in a safe manner by depressurizing, venting, and disconnecting lines and conducting any other appropriate operations.

(c) In addition to the requirements of paragraph (b) of this section, the procedures for cargo transfer must be located at the transfer area and include provisions for personnel to:

(1) Be in constant attendance during all cargo transfer operations;

(2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver;

(3) Before transfer, verify that:

(i) Each tank car or tank truck complies with applicable regulations governing its use;

(ii) All transfer hoses have been visually inspected for damage and defects;

(iii) Each tank truck is properly immobilized with chock wheels, and electrically grounded; and